
Version	Revision Date:	SDS Number:	Date of last issue: 2015/09/21
1.1	2015/09/21	100000009528	Date of first issue: 2015/07/29

SECTION 1. IDENTIFICATION

Substance name : FYSIUM[®] Package Pesticide Cartridge

Manufacturer or supplier's details

Company name of supplier : Janssen Preservation&Material Protection
Division of Janssen Pharmaceutica NV

Address : 1125 Trenton-Harbourton Rd
Titusville NJ 08560
US

Telephone : (609) 730-2000

Emergency telephone number : **+32 14 60 24 44**

E-mail address : SDSJanssen@its.jnj.com

Responsible/issuing person

Recommended use : *In situ* production of plant protection agent from starting materials

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification – Active Substance (gas)**

Non-Hazardous

GHS Classification – Liquid Components

Flammable liquids : Category 3

Acute toxicity (Dermal) : Category 4

Skin corrosion : Category 1B

Serious Eye Damage : Category 1

Skin sensitisation : Category 1

Germ cell mutagenicity : Category 2

Acute aquatic toxicity : Category 1

Chronic aquatic toxicity : Category 1

Version 1.1	Revision Date: 2015/09/21	SDS Number: 100000009528	Date of last issue: 2015/09/21 Date of first issue: 2015/07/29
----------------	------------------------------	-----------------------------	---

GHS Label element – Active Substance (gas)

Non-Hazardous

GHS Label element – Liquid Components

Hazard pictograms



Signal word

: Danger

Hazard statements

: H226 Flammable liquid and vapour.
 H312 Harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H317 May cause an allergic skin reaction.
 H341 Suspected of causing genetic defects.
 H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

: **Prevention:**
 P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P233 Keep container tightly closed.
 P240 Ground/bond container and receiving equipment.
 P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

Version 1.1	Revision Date: 2015/09/21	SDS Number: 100000009528	Date of last issue: 2015/09/21 Date of first issue: 2015/07/29
----------------	------------------------------	-----------------------------	---

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P363 Wash contaminated clothing before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

P391 Collect spillage.

Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

none

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Multiple Substances

Chemical nature : Liquid
Gaseous**Hazardous components:****Gas produced from *in situ* generation:**

1-methylcyclopropene (1-MCP)	3100-04-7	>= 90 - <= 100
------------------------------	-----------	----------------

Liquid component starting materials for *in situ* generation of 1-MCP

TETRABUTYLAMMONIUMFLUORIDE.3H2O - ingredient of Component A	87749-50-6	>=1 - <= 30
Dimethyl sulfoxide (DMSO) - ingredient of Component A	67-68-5	>= 2 - < 40
Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-, 1-metanasulfonate (Component B)	1446996-86-6	>= 0.1 - <= 10
Caustic soda (Component C)	1310-73-2	>=0.01 - <1.0

Version	Revision Date:	SDS Number:	Date of last issue: 2015/09/21
1.1	2015/09/21	100000009528	Date of first issue: 2015/07/29

SECTION 4. FIRST AID MEASURES

- If inhaled : If breathed in, move person into fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off immediately with plenty of water.
If symptoms persist, call a physician.
Wash contaminated clothing before re-use.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids,
for at least 15 minutes.
Remove contact lenses.
Consult a physician.
- If swallowed : If swallowed, rinse mouth with water (only if the person is
conscious).
Do NOT induce vomiting.
Call a physician immediately.
Drink plenty of water.
- Most important symptoms and effects, both acute and delayed : Corrosive to eyes and skin
sensitising effects
- Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Dry powder
Carbon dioxide (CO₂)
Foam – alcohol resistant
Water mist
Sand
Aqueous film forming foam (AFFF).
- Unsuitable extinguishing media : Water spray jet
- Specific hazards during firefighting : Flammable

Version	Revision Date:	SDS Number:	Date of last issue: 2015/09/21
1.1	2015/09/21	100000009528	Date of first issue: 2015/07/29

Further information : In the event of fire, cool tanks with water spray.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Firefighters must wear fire resistant personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Evacuate personnel to safe areas. Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition.
Environmental precautions	Liquid components:	Should not be released into the environment. Do not flush into surface water or sanitary sewer system.
Methods and materials for containment and cleaning up	Gas:	No special environmental precautions required
	Liquid components:	Large spills: Dam up. Soak up with inert absorbent material. Keep in properly labelled containers. Small spills: Gently cover the spill with an absorbent towel or pad. Large spills + small spills: Keep in suitable, closed containers for disposal. Treat recovered material as described in the section "Disposal considerations".
	Gas:	Allow to evaporate

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Keep away from heat and sources of ignition. No smoking. Keep away from combustible material.
Advice on safe handling	Liquid components & gas:	To avoid thermal decomposition, do not overheat. For personal protection see section 8. Keep away from heat and sources of ignition. Do not use in areas without adequate ventilation.
	Liquid components:	Prevent the dangers of splashing when transferring or

Version	Revision Date:	SDS Number:	Date of last issue: 2015/09/21
1.1	2015/09/21	100000009528	Date of first issue: 2015/07/29

Conditions for safe storage	Liquid components:	diluting. To maintain product quality, do not store in heat or direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container.
	Gas:	Keep away from heat and sources of ignition. Not applicable

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
<u>1-methylcyclopropene (1-MCP)</u>	<u>3100-04-7</u>	<u>TWA</u>	<u>0.3 ppm</u>	<u>J&J</u> <u>OEL/PBOEL</u> <u>HHC</u>
		<u>STEL</u>	<u>1.0 ppm</u>	<u>J&J</u> <u>OEL/PBOEL</u> <u>HHC</u>
Dimethyl sulfoxide (DMSO) of Component A	67-68-5	TWA	250 ppm	US WEEL
Caustic soda (Component C)	1310-73-2	C C TWA C	2 mg/m ³ 2 mg/m ³ 2 mg/m ³ 2 mg/m ³	ACGIH NIOSH REL OSHA Z-1 OSHA P0

Hazardous components without workplace control parameters

Components	CAS-No.
Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-, 1-metanasulfonate (Component B)	1446996-86-6

Engineering measures : Engineering controls should be used as the primary means to control possible exposures. Use process enclosures, local exhaust ventilation or other engineering controls to keep exposure levels below recommended exposure limits.

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.
This should be achieved by a good general extraction and -if practically feasible- by the use of a local exhaust ventilation.

SAFETY DATA SHEET



Version	Revision Date:	SDS Number:	Date of last issue: 2015/09/21
1.1	2015/09/21	100000009528	Date of first issue: 2015/07/29

Use respirator when performing operations involving potential exposure to vapour of the product.

Respirator cartridge: NIOSH approved Organic Vapor Acid Gas cartridge.

Wear a self-contained breathing apparatus in all circumstances when the mask and cartridge do not give adequate protection (e.g. : medium confinement/insufficient oxygen/in case of large uncontrolled emissions).

Use only respiratory protection that conforms to international/national standards.

Engineering controls should always be the primary method of controlling exposures.

If respiratory protective equipment is needed for certain activities, the type as well as the corresponding protection factor will depend upon the risk assessment and air concentrations, hazards, physical and warning properties of substances present.

Hand protection

Material : butyl-rubber

Material : Nitrile rubber

Material : Neoprene

Material : Natural Rubber

Material : Viton (R)

Remarks : Impervious gloves
Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Eye protection : Tightly fitting safety goggles

Skin and body protection : closed work clothing
Long sleeved clothing
impervious clothing

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

Version	Revision Date:	SDS Number:	Date of last issue: 2015/09/21
1.1	2015/09/21	100000009528	Date of first issue: 2015/07/29

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	components:	liquid
	active substance	gaseous
Odour	component A	odourless
	component B	alcohol-like
	component C	No data available
	active substance	Pungent, slight, sweet
Odour Threshold	:	No data available
pH	component A	5.23, concentration 10 g/l
	component B	5.57
	component C	no data available
	active substance	7.1
Melting point/range	components	No data available
	active substance	(-)180 – (-) 140°C
Boiling point/boiling range	component A	192°C
	component B	168°C
	component C	no data available
	active substance	not applicable
Flash point	component A	91.2°C
	component B	25.6°C
	component C	no data available
	active substance	not applicable
Evaporation rate	:	No data available
Flammability (solid, gas)	:components	No data available.
	active substance	combustible

SAFETY DATA SHEET



Version 1.1	Revision Date: 2015/09/21	SDS Number: 100000009528	Date of last issue: 2015/09/21 Date of first issue: 2015/07/29
----------------	------------------------------	-----------------------------	---

Upper explosion limit	components	no data available
	active substance	> 30% (v)
Lower explosion limit	components	no data available
	active substance	1.25 – 1.60 % (v)
Vapour pressure	component A	No data available
	component B	0.39 Pa (25°C)
	component C	no data available
	active substance	2,070 hPa
Relative vapour density	:	No data available
Relative density	component A:	1.046
	component B	1.005
	component C	1.0
	active substance	not applicable
Density	component A:	1.046 g/cm ³
	component B	1.005 g/cm ³
	component C	no data available
	active substance	not applicable
Solubility(ies) Water solubility	component A	completely miscible
	component B	2.7 mg/l (20°C)
	component C	no data available
	active substance	88.0 mg/l
Solubility in other solvents	components	no data available
	active substance	0.011 g/l solvent: methanol 0.0024 g/l solvent: acetone 0.0024 g/l solvent: heptane 0.0022 g/l solvent: xylene
Partition coefficient: n-octanol/water	component A	No data available

SAFETY DATA SHEET



Version 1.1	Revision Date: 2015/09/21	SDS Number: 100000009528	Date of last issue: 2015/09/21 Date of first issue: 2015/07/29
----------------	------------------------------	-----------------------------	---

	component B component C active substance	log Pow: 4.3 no data available log Pow 2.7
Auto-ignition temperature	component A	254°C
	component B component C active substance	248°C no data available 242°C
Decomposition temperature	:	No data available
Viscosity Viscosity, kinematic	component A component B component C active substance	10.6 mm ² /s (20°C) 5.4 mm ² /s (40°C) 11.2 mm ² /s (20°C) 6.0 mm ² /s (40°C) no data available not applicable
Explosive properties	component A component B component C active substance	Not explosive not explosive no data available explosive
Oxidizing properties	component A component B component C active substance	The substance or mixture is not classified as oxidizing. The substance or mixture is not classified as oxidizing. no data available The substance or mixture is not classified as oxidizing.
Conductivity	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	components	None reasonably foreseeable.
	active substance	highly reactive

Version 1.1	Revision Date: 2015/09/21	SDS Number: 100000009528	Date of last issue: 2015/09/21 Date of first issue: 2015/07/29
----------------	------------------------------	-----------------------------	---

Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	component A component B	heat, flames and sparks To avoid thermal decomposition, do not overheat. Heat, flames and sparks.
	component C active substance	no data available none known
Incompatible materials	component A	Acid chlorides Strong acids and oxidizing agents Strong reducing agents Permanganates Water Ammonium salts
	component B component C	none known Strong acids and oxidizing agents Organic materials
	active substance	none known
Hazardous decomposition products	component A	Carbon monoxide Nitrogen oxides (NO _x) Sulfur oxides
	component B	none known
	component C active substance	no data available none known

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Active Substance

Acute oral toxicity	:	Remarks: No data available
Acute inhalation toxicity	:	LC50: >= 1000 ppm Method: OECD Test Guideline 403

Version	Revision Date:	SDS Number:	Date of last issue: 2015/09/21
1.1	2015/09/21	100000009528	Date of first issue: 2015/07/29

Components:**COMPONENT A**

Acute oral toxicity : LD50 (Rat): 3,129 mg/kg
Acute inhalation toxicity : LC50 (Rat, male and female): > 2.12 mg/l
Acute dermal toxicity : LD50 (Rat): 1,000 – 2,000 mg/kg

COMPONENT B

Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg
Acute inhalation toxicity : LC50: > 5.05 mg/l
Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

Skin corrosion/irritation**Active Substance**

Remarks: No data available

Components:**COMPONENT A**

Result: Corrosive after 3 minutes to 1 hour of exposure

COMPONENT B

Species: Rabbit
Exposure time: 4 h
Method: OECD Test Guideline 404
Result: Not expected to cause skin irritation

Serious eye damage/eye irritation**Active Substance**

Remarks: No data available

Components:**COMPONENT A**

Result: Corrosive to eyes

COMPONENT B

Version	Revision Date:	SDS Number:	Date of last issue: 2015/09/21
1.1	2015/09/21	100000009528	Date of first issue: 2015/07/29

Species: Rabbit
Method: OECD Test Guideline 405
Result: not expected to cause eye irritation

Respiratory or skin sensitisation

Active Substance

Remarks: No data available

Components:

COMPONENT A

No data available

COMPONENT B

Species: Mouse
Method: Local Lymph Node Assay (LLNA) in mice (OECD 429)
Result: May cause sensitisation by skin contact.

Germ cell mutagenicity

Active Substance

Genotoxicity in vitro : Method: Ames test
Result: negative

: Species: Human lymphocytes
Method: NGLP in vitro CAT
Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Mouse
Result: negative

Components:

COMPONENT A

Germ cell mutagenicity - Assessment : No data available

COMPONENT B

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Species: Human lymphocytes
Method: OECD Test Guideline 473
Result: positive

: Test Type: Ames test

Version	Revision Date:	SDS Number:	Date of last issue: 2015/09/21
1.1	2015/09/21	100000009528	Date of first issue: 2015/07/29

Result: positive

Test Type: Cell mutation assay in vitro
Species: Mouse lymphoma L5178Y cells

Results: Positive

Test Type: Micronucleus in vitro

Species: Human lymphocytes

Result: Negative

Germ cell mutagenicity - Assessment : Suspected of causing genetic defects, based on positive evidence obtained from in vitro studies and expert judgment.

Carcinogenicity

Active Substance

Remarks: None

Components:

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Active Substance

Effects on foetal development

: NOAEL Teratogenic effects 543 mg/kg
NOAEL Maternal effects 0.24 mg/kg
Remarks: negative

Components:

COMPONENT A

Teratogenicity - Assessment : No information available.

COMPONENT B

Teratogenicity - Assessment : No information available.

Version	Revision Date:	SDS Number:	Date of last issue: 2015/09/21
1.1	2015/09/21	100000009528	Date of first issue: 2015/07/29

STOT – single exposureActive Substance

Remarks: No data available

Components:**COMPONENT A**

Remarks: No data available

COMPONENT B

Remarks: No data available

STOT - repeated exposureActive Substance

Remarks: No data available

Components:**COMPONENT A**

Remarks: No data available

COMPONENT B

Remarks: No data available

Repeated dose toxicity**Active Substance**

NOAEL: 0.7 mg/kg

Application Route: Inhalation

Exposure time: 3 weeks at 6 hrs/day

NOAEL: 9 mg/kg

Application Route: Inhalation

Exposure time: 90 days at 6 hrs/day

Components:

COMPONENT A

Remarks: No data available

Component B

Remarks: No data available

Version	Revision Date:	SDS Number:	Date of last issue: 2015/09/21
1.1	2015/09/21	100000009528	Date of first issue: 2015/07/29

Aspiration toxicity

No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Active Substance**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.966 mg/l

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 0.722 mg/l

Toxicity to algae : NOEC (Pseudokirchneriella subcapitata (microalgae)): > 0.371 mg/l

Components:**COMPONENT A**

Toxicity to fish : Remarks: No data available

COMPONENT BToxicity to fish : LC50: > 0.5 mg/l
Exposure time: 96 h**Persistence and degradability****Active Substance**

Biodegradability : Remarks: Not applicable

Components:**COMPONENT A**

Biodegradability : Remarks: No data available

COMPONENT B

Biodegradability : Result: Not readily biodegradable.

Bioaccumulative potential**Active Substance**

Bioaccumulation : Remarks: Not applicable

Partition coefficient: n-octanol/water

Log Pow: 2.7

Components:**COMPONENT A**

SAFETY DATA SHEET



Version 1.1 Revision Date: 2015/09/21 SDS Number: 100000009528 Date of last issue: 2015/09/21
Date of first issue: 2015/07/29

Bioaccumulation : Remarks: No data available

Partition coefficient: n-octanol/water : Remarks: No data available

COMPONENT B

Bioaccumulation : Remarks: No data available

Partition coefficient: n-octanol/water : Pow: 4.3

Mobility in soil

Active Substance

Stability in soil : Remarks: Not applicable

Components:

COMPONENT A

Distribution among environmental compartments : Remarks: No data available

Stability in soil : Remarks: No data available

COMPONENT B

Distribution among environmental compartments : Remarks: No data available

Stability in soil : Remarks: No data available

Other adverse effects

Active Substance

Additional ecological information : No data available

Components:

COMPONENT A

Results of PBT and vPvB assessment : No information available.

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SAFETY DATA SHEET



Version	Revision Date:	SDS Number:	Date of last issue: 2015/09/21
1.1	2015/09/21	100000009528	Date of first issue: 2015/07/29

Additional ecological information : No data available

COMPONENT B

Results of PBT and vPvB assessment : No information available.

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues :
Wastes resulting from the use of this product, such as spent, partially used, damaged and excess full cartridges shall be collected by the service company provider and disposed of at an approved waste disposal facility as hazardous waste by incineration
Container handling: Nonrefillable container. Do not reuse or refill this container. Not for recycling or reconditioning.
Service company provider shall collect all cartridges for disposal at a licensed waste disposal facility by incineration.

SECTION 14. TRANSPORT INFORMATION

REMARK:

Shipper boxes containing FYSIUM® Package Pesticide cartridges must only be shipped under **DOT CFR Road/Rail** and **IMDG "Limited Quantity"** provisions

International transport regulations

COMPONENT A

DOT
UN number : 1760

SAFETY DATA SHEET



Version 1.1 Revision Date: 2015/09/21 SDS Number: 100000009528 Date of last issue: 2015/09/21
Date of first issue: 2015/07/29

Description of the goods : Corrosive liquids, n.o.s.
(TETRABUTYLAMMONIUMFLUORIDE.3H2O)
Class : 8
Packing group : II
Labels : 8
Emergency Response : 154
Guidebook Number :
Environmentally hazardous : no

IATA

UN number : 1760
Description of the goods : Corrosive liquid, n.o.s.
(TETRABUTYLAMMONIUMFLUORIDE.3H2O)
Class : 8
Packing group : II
Labels : 8
Packing instruction (CAO) : 855
Packing instruction (PAX and CAO) : 851
Packing instruction (LQ) : Y840
Environmentally hazardous : no

IMDG

UN number : 1760
Description of the goods : CORROSIVE LIQUID, N.O.S.
(TETRABUTYLAMMONIUMFLUORIDE.3H2O)
Class : 8
Packing group : II
Labels : 8
EmS Number 1 : F-A
EmS Number 2 : S-B
Marine pollutant : no

COMPONENT B

DOT

UN number : 1993
Description of the goods : Flammable liquids, n.o.s.
(Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-, 1-metanasulfonate)
Class : 3
Packing group : III
Labels : 3
Emergency Response : 128

SAFETY DATA SHEET



Version 1.1 Revision Date: 2015/09/21 SDS Number: 100000009528 Date of last issue: 2015/09/21
Date of first issue: 2015/07/29

Guidebook Number
Environmentally hazardous : yes

IATA

UN number : 1993
Description of the goods : Flammable liquid, n.o.s.
(Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-, 1-metanasulfonate)
Class : 3
Packing group : III
Labels : 3
Packing instruction (CAO) : 366
Packing instruction (PAX and CAO) : 355
Packing instruction (LQ) : Y344
Environmentally hazardous : yes

IMDG

UN number : 1993
Description of the goods : FLAMMABLE LIQUID, N.O.S.
(Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-, 1-metanasulfonate)
Class : 3
Packing group : III
Labels : 3
EmS Number 1 : F-E
EmS Number 2 : S-E
Marine pollutant : yes

COMPONENT C

ADR

Not dangerous goods

RID

Not dangerous goods

DOT

Not dangerous goods

IATA

Version 1.1	Revision Date: 2015/09/21	SDS Number: 100000009528	Date of last issue: 2015/09/21 Date of first issue: 2015/07/29
----------------	------------------------------	-----------------------------	---

Not dangerous goods

IMDG

Not dangerous goods

SECTION 15. REGULATORY INFORMATION

Product: FYSIUM® Package Pesticide Cartridge

USEPA Registration Number: 43813-57

EPCRA - Emergency Planning and Community Right-to-Know Act

- SARA 311/312 Hazards** : Fire Hazard
- SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemicals are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

Dimethyl sulfoxide (DMSO)	CAS No. 67-68-5	60%
---------------------------	-----------------	-----

Clean Water Act

The following Hazardous Substances are listed under the U.S. Clean Water Act, Section 311, Table 116.4A:

Caustic soda	CAS No. 1310-73-2	0.03%
--------------	-------------------	-------

The following Hazardous Substances are listed under the U.S. Clean Water Act, Section 311, Table 117.3:

SAFETY DATA SHEET



Version 1.1	Revision Date: 2015/09/21	SDS Number: 100000009528	Date of last issue: 2015/09/21 Date of first issue: 2015/07/29
----------------	------------------------------	-----------------------------	---

Caustic soda	CAS No. 1310-73-2	0.03%
--------------	-------------------	-------

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

Cyclopropene, 1-methyl-	3100-04-7	90 – 100 %
Tetrabutylammonium fluoride trihydrate	87749-50-6	1 – 30 %
Dimethyl sulfoxide (DMSO)	67-68-5	2 – 40 %
Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-, 1-metanasulfonate	1446996-86-6	0.1 - 10 %
Caustic soda	1310-73-2	0.01 – 1.0 %
Water	7732-18-5	30 – 100 %

New Jersey Right To Know

Cyclopropene, 1-methyl-	3100-04-7	90 – 100 %
Tetrabutylammonium fluoride trihydrate	87749-50-6	1 – 30 %
Dimethyl sulfoxide (DMSO)	67-68-5	2 – 40 %
Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-, 1-metanasulfonate	1446996-86-6	0.1 - 10 %
Water	7732-18-5	30 – 100 %

California Prop 65

: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

REACH	: Not in compliance with the inventory
	: DMSO
	: TETRABUTYLAMMONIUMFLUORIDE.3H2O
	: Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-, 1metanasulfonate
CH INV	: Not in compliance with the inventory
	: Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-, 1metanasulfonate

SAFETY DATA SHEET



Version 1.1 Revision Date: 2015/09/21 SDS Number: 100000009528 Date of last issue: 2015/09/21
Date of first issue: 2015/07/29

TSCA Caustic soda
Water
: Not On TSCA Inventory

: TETRABUTYLAMMONIUMFLUORIDE.3H2O

DSL Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-,
1metanasulfonate
: This product contains the following components that are not
on the Canadian DSL nor NDSL.

: TETRABUTYLAMMONIUMFLUORIDE.3H2O

AICS Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-,
1metanasulfonate
: Not in compliance with the inventory

: TETRABUTYLAMMONIUMFLUORIDE.3H2O

NZIoC Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-,
1metanasulfonate
Not in compliance with the inventory

ENCS Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-,
1metanasulfonate
: Not in compliance with the inventory

: TETRABUTYLAMMONIUMFLUORIDE.3H2O

ISHL Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-,
1metanasulfonate
Water
: Not in compliance with the inventory

: TETRABUTYLAMMONIUMFLUORIDE.3H2O

KECI Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-,
1metanasulfonate
Water
: Not in compliance with the inventory

: TETRABUTYLAMMONIUMFLUORIDE.3H2O

PICCS Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-,
1metanasulfonate
: On the inventory, or in compliance with the inventory

Version	Revision Date:	SDS Number:	Date of last issue: 2015/09/21
1.1	2015/09/21	100000009528	Date of first issue: 2015/07/29

IECSC : Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-,
1metanasulfonate
: Not in compliance with the inventory

: TETRABUTYLAMMONIUMFLUORIDE.3H2O

Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-,
1metanasulfonate
: On most inventories, TBAF.3H2O (CAS# 87749-50-6) is not
listed per se on the inventory because it is a hydrate of TBAF
(CAS # 429-41-4). In many cases, hydrates are considered to
be listed if the CAS number for the anhydrous form is included
on the inventory. This should be confirmed for each inventory.

Cyclopropanol, 2-(butyldimethylsilyl)-1-methyl-,
1metanasulfonate is exempt from REACH and TSCA

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

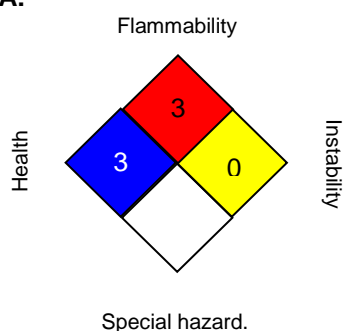
- : This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:
- : DANGER
- : Corrosive. Causes irreversible eye damage and skin burns.
May be fatal if absorbed through skin.
- : Harmful if swallowed
- : Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals

Version 1.1	Revision Date: 2015/09/21	SDS Number: 100000009528	Date of last issue: 2015/09/21 Date of first issue: 2015/07/29
----------------	------------------------------	-----------------------------	---

SECTION 16. OTHER INFORMATION

Further information: Ratings for FYSIUM Pesticide Package Cartridge (components and 1-MCP gas produced)

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	3
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
 2 = Moderate, 3 = High
 4 = Extreme, * = Chronic

Revision Date : 0000/00/00

Date and Number Formats

This document uses the following notation for printing dates and numbers:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

US / EN